Carnegie Mellon
Software Engineering Institute

Process Maturity Profile

CMMI®
SCAMPISM Class A Appraisal Results
2008 Mid-Year Update

September 2008

We could not produce this report
without the support of the organizations
and lead appraisers who reported their
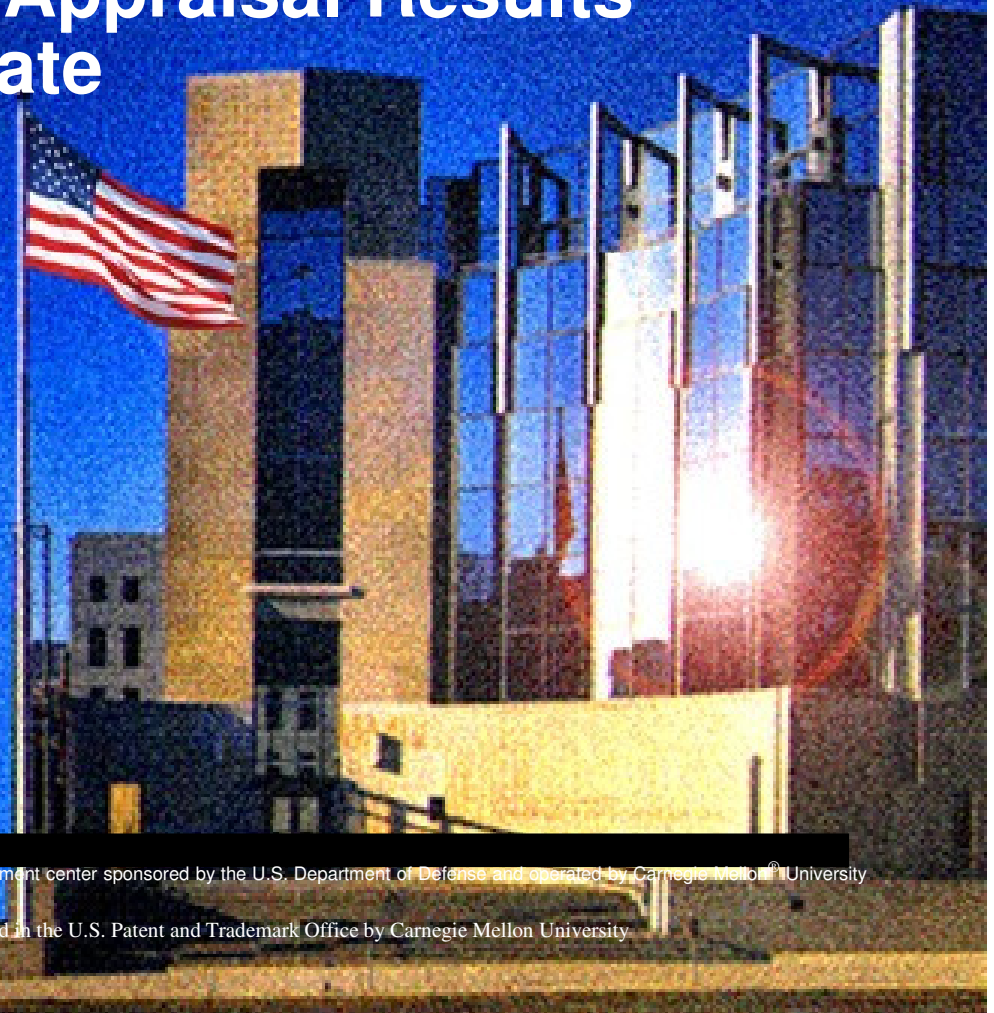appraisal results to the SEISM.

Our many thanks for their continuing
cooperation with our data collection
and analysis efforts.

CMMI Appraisal Program

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Report Documentation Page

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

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Outline

Introduction

Current Status

Community Trends

Organizational Trends

Summary And Terms used in this Briefing

How to Report your Appraisal Results to the SEI

This briefing is based solely on the appraisals reported to the SEI. It cannot be used as a source for an exact indicator of all organizations in the world using CMMI models or appraisal methods nor can it be used for certification or verification purposes.

The SEI does not certify appraisal results or organizations. The SEI licenses SEI Partners, authorizes lead appraisers, team leaders and certified high maturity lead appraisers to conduct appraisals. Neither the SEI nor any other organization is a "certifying authority" of the results from a SCAMPI appraisal. Therefore requests to the SEI to provide information to be used for this purpose can not be fulfilled. Information provided by the SEI, such as this briefing, is to demonstrate reported results of the use of CMMI products and services only.

Organizations performing source selection or verification should consider performing an evaluation appraisal. For more information on appraisal methods and for a directory of authorized lead appraisers who can perform them, visit:
http://www.sei.cmu.edu/appraisal-program/

Introduction: Purpose

Characterize the adoption of CMMI®

Describe results from Standard CMMI Appraisal Method for Process Improvement (SCAMPISM) v1.1/v1.2 Class A appraisals using Capability Maturity Model® Integration (CMMI) v1.1 /v1.2 *

Encourage continued reporting of results

* Organizations previously appraised against CMMI v1.0 and which have not reappraised against v 1.1 are not included in this report

Please visit: http://www.sei.cmu.edu/appraisal-program/profile/index.html for additional information or questions you may have about this briefing before contacting the SEI directly

Introduction - 2: Briefing Contents

This briefing includes three primary sections:

1. **Current Status**
   - **Snapshot of the software community based on the most recent appraisal, since 2002, of reporting organizations**

2. **Community Trends**
   - **Global distribution of appraisals**
   - **Growth in the number of appraisals performed**
   - **Shifts in the maturity profile over time**

3. **Organizational Trends**
   - **Analysis of Process Area (PA) satisfaction**
   - **Time to move up in maturity based on change in maturity level and time between appraisals**

Section 1: Current Status

SCAMPI v1.1/v1.2 Class A appraisals conducted from the SCAMPI V1.1 April 2002 release through June 2008 and reported to the SEI by July 2008

- **3,553** appraisals
- **3,009** organizations
- **2,168** participating companies
- **451** reappraised organizations
- **17,398** projects
- **69.9%** Non-USA organizations

Please refer to: Terms Used in this Report on page 30

Additional charts providing different views and break down of this information will be added to this briefing as more appraisal data is reported to the SEI over time.
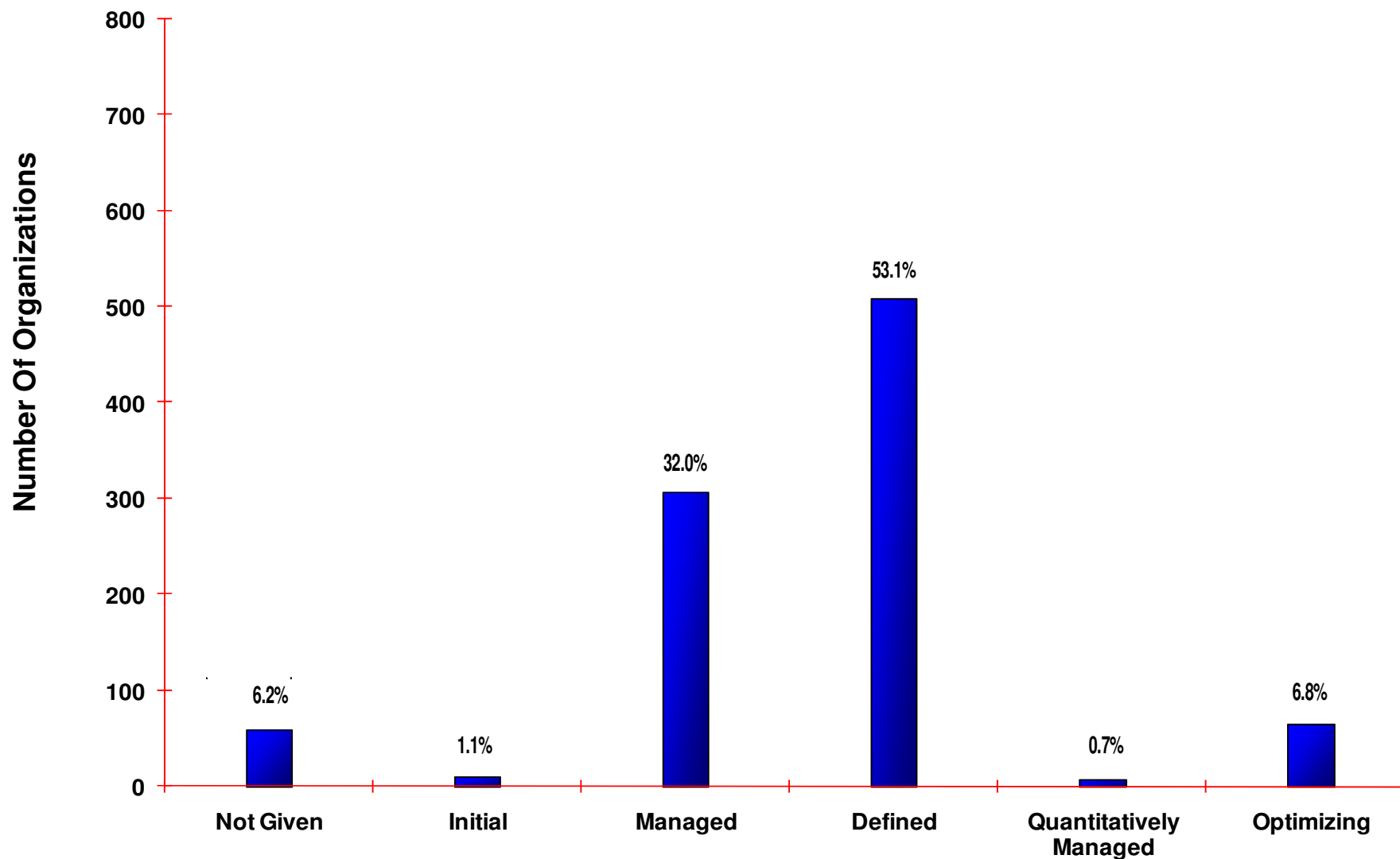
Process Maturity Profile
by All Reporting Organizations
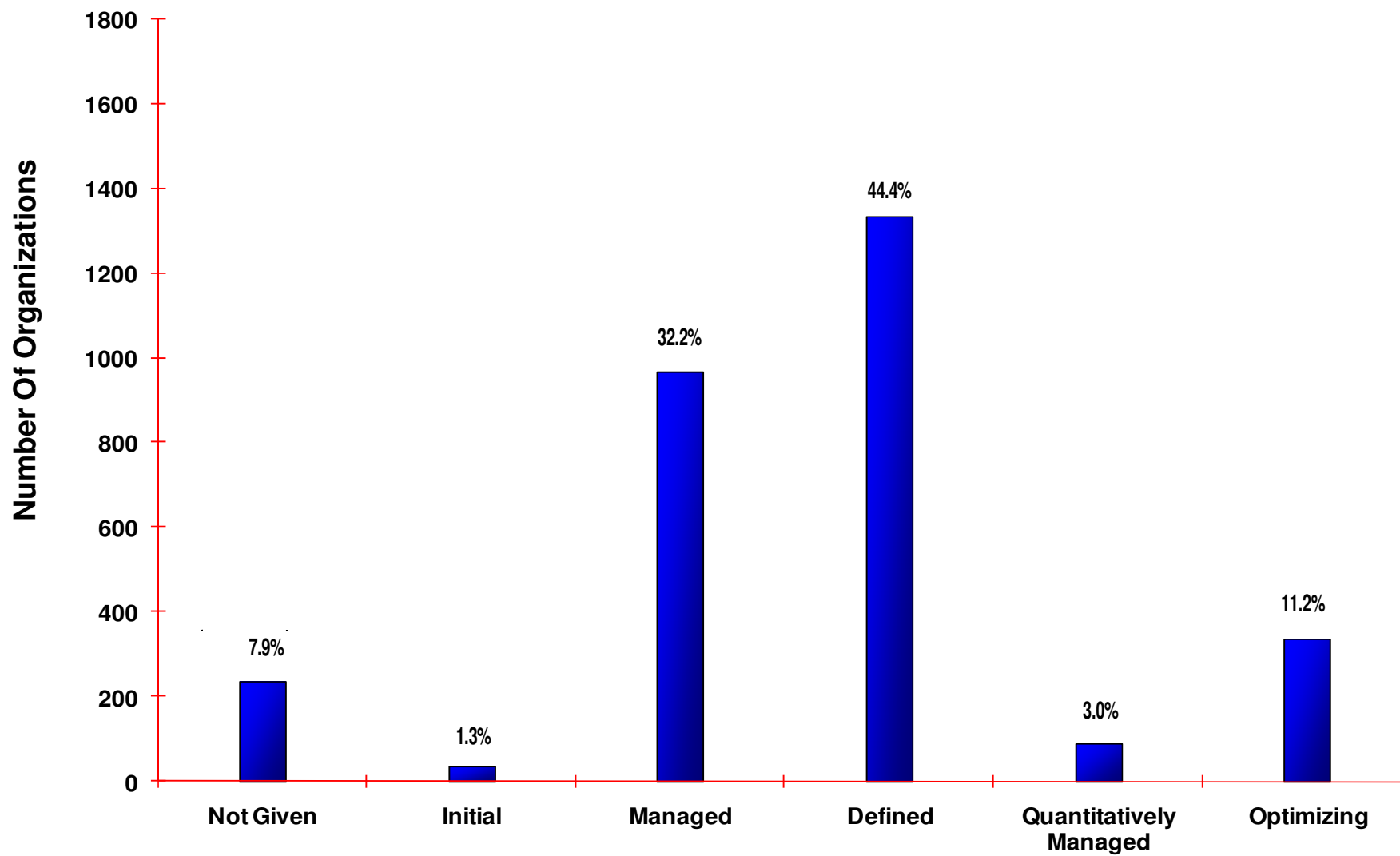
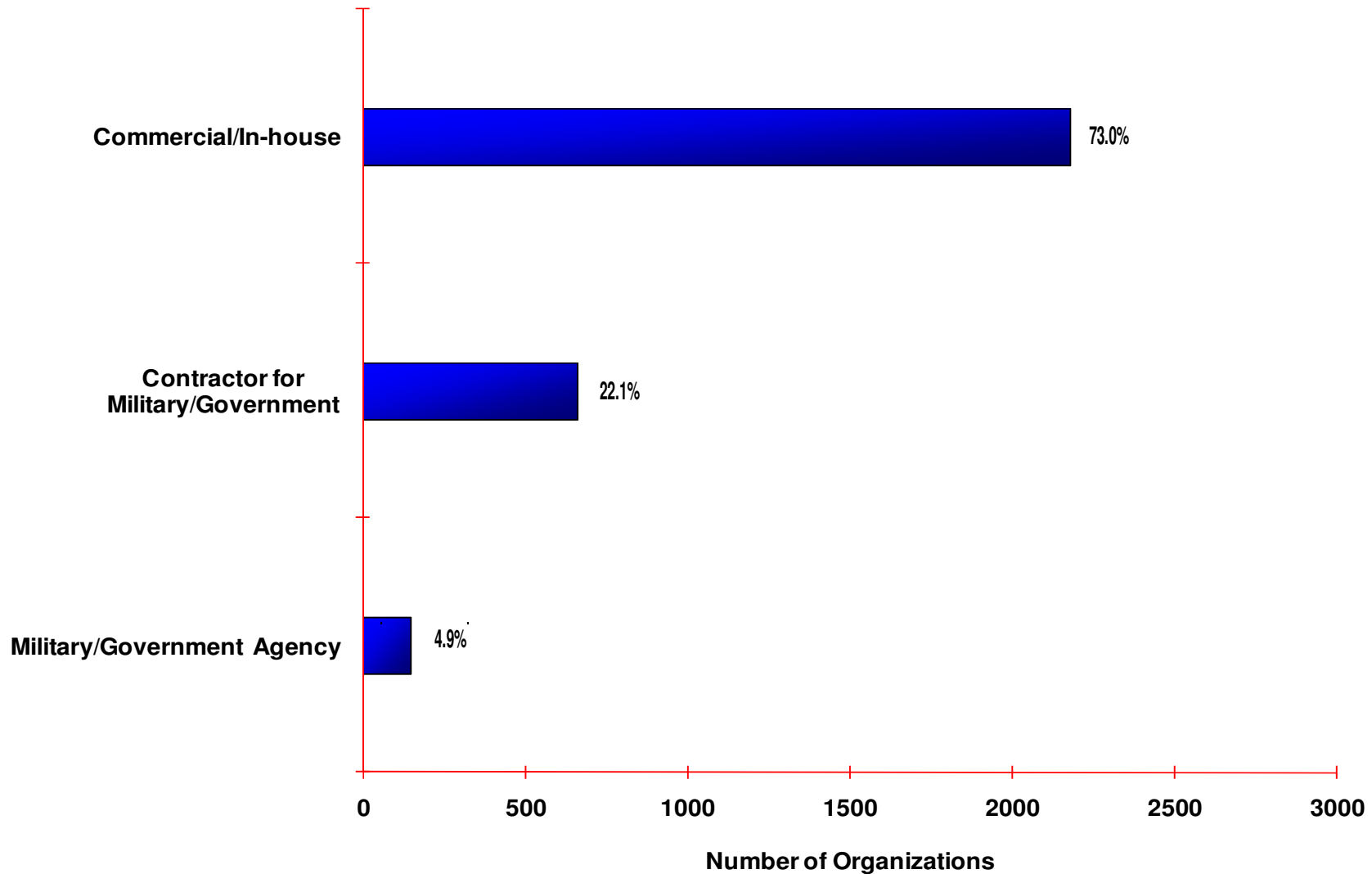
Based on most recent appraisal of **3009** organizations

Process Maturity Profile (V1.2 Only) by All Reporting Organizations

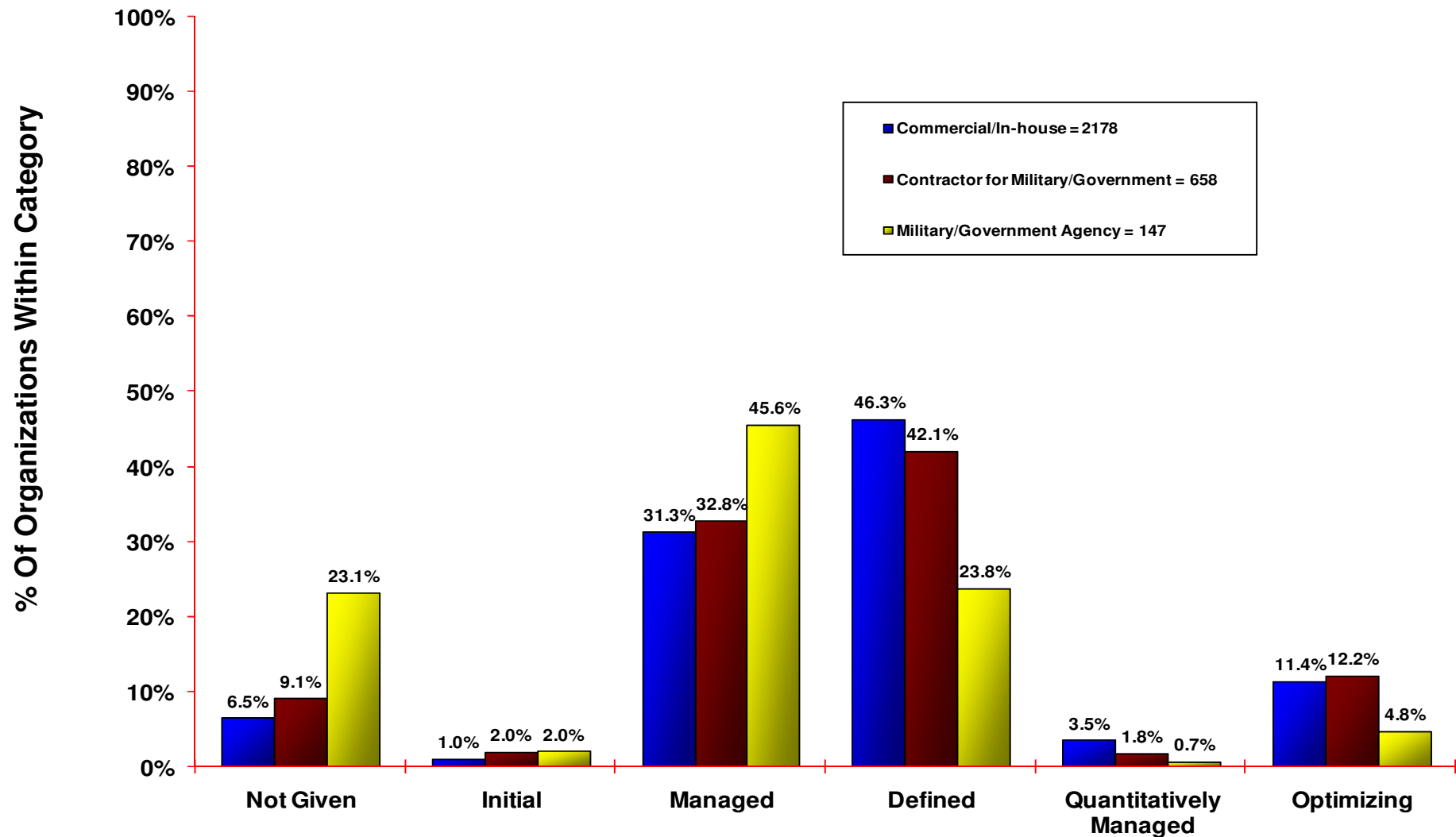Based on most recent appraisal of **958** organizations

Process Maturity Profile
by Reporting Organization Categories

% Of Organizations Within Category

Legend:
- Commercial/In-house = 2178
- Contractor for Military/Government = 658
- Military/Government Agency = 147

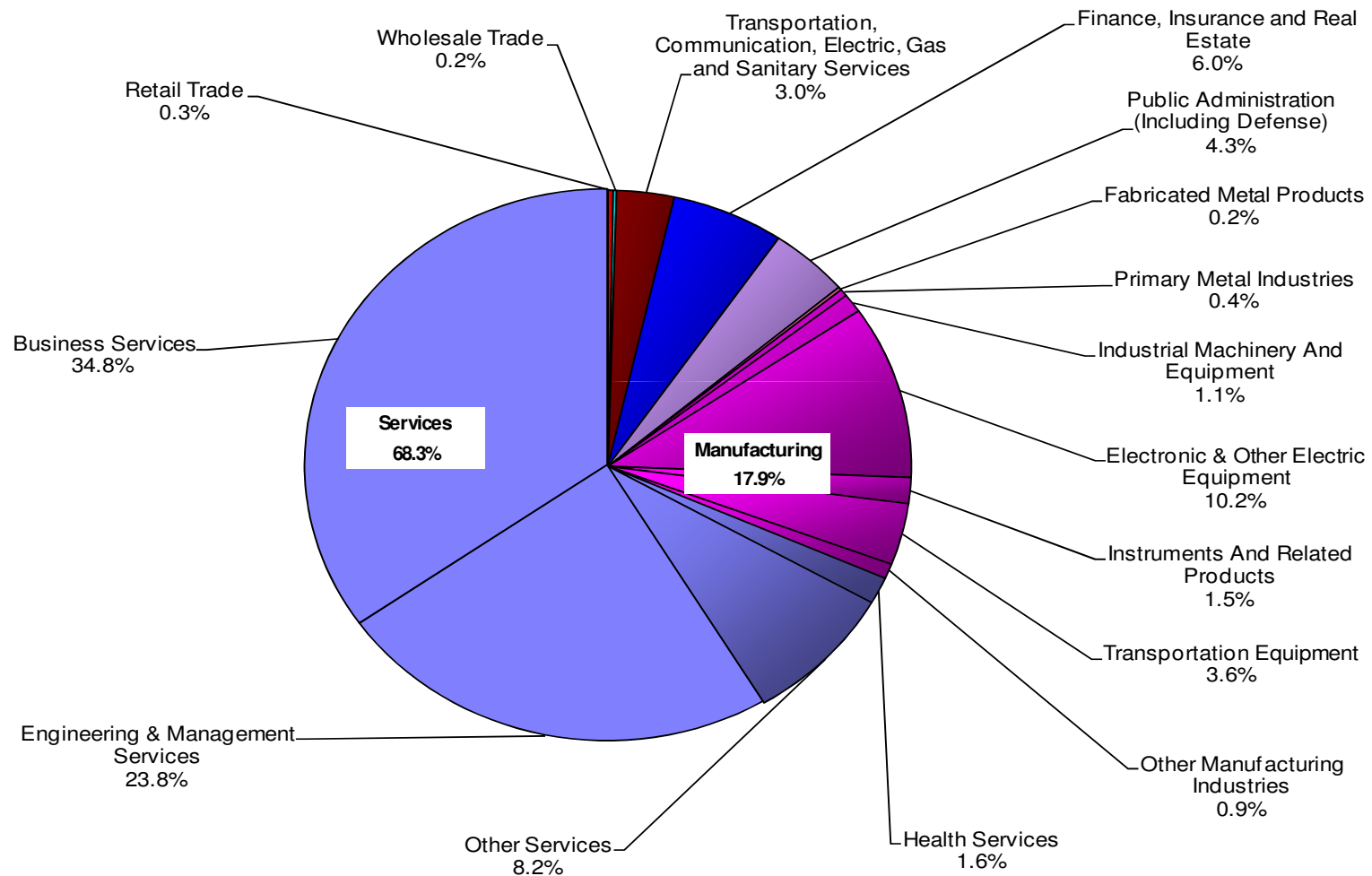| Category	Commercial/In-house	Contractor for Military/Government	Military/Government Agency
Not Given	6.5%	9.1%	23.1%
Initial	1.0%	2.0%	2.0%
Managed	31.3%	32.8%	45.6%
Defined	46.3%	42.1%	23.8%
Quantitatively Managed	3.5%	1.8%	0.7%
Optimizing	11.4%	12.2%	4.8%

Based on most recent appraisal of 2983 organizations reporting an organization category

Organization Type
## Based on Primary Standard Industrial Classification (SIC) Code

Wholesale Trade
0.2%

Transportation,
Communication, Electric, Gas
and Sanitary Services
3.0%

Finance, Insurance and Real
Estate
6.0%

Retail Trade
0.3%

Public Administration
(Including Defense)
4.3%

Fabricated Metal Products
0.2%

Business Services
34.8%

Primary Metal Industries
0.4%

Industrial Machinery And
Equipment
1.1%

Services
68.3%

Manufacturing
17.9%

Electronic & Other Electric
Equipment
10.2%

Instruments And Related
Products
1.5%

Transportation Equipment
3.6%

Engineering & Management
Services
23.8%

Other Manufacturing
Industries
0.9%

Other Services
8.2%

Health Services
1.6%

Based on **2165** organizations reporting SIC code. For more information visit: http://www.osha.gov/oshstats/sicser.html

Organization Size

Based on the total number of employees within the area of the organization that was appraised
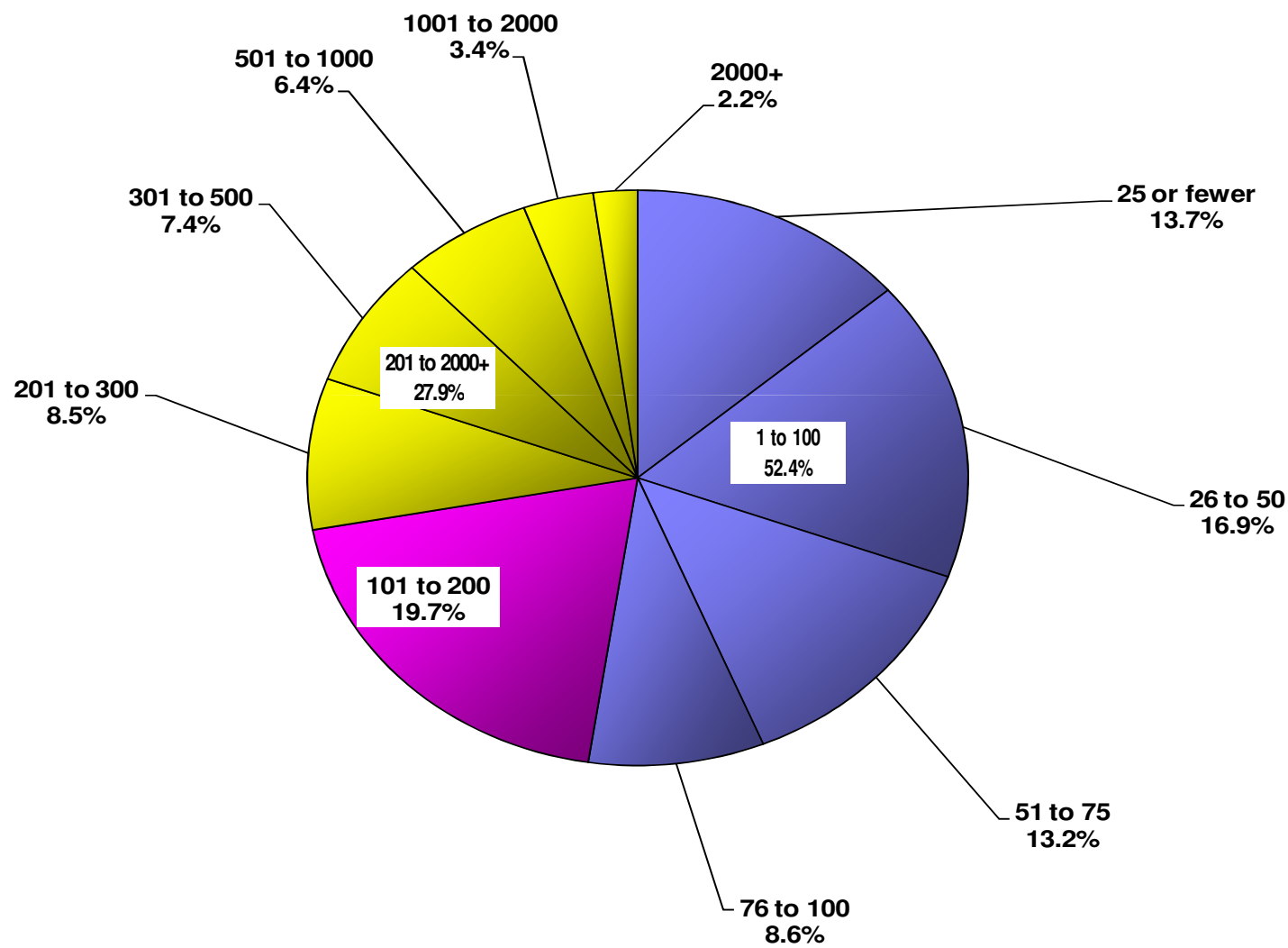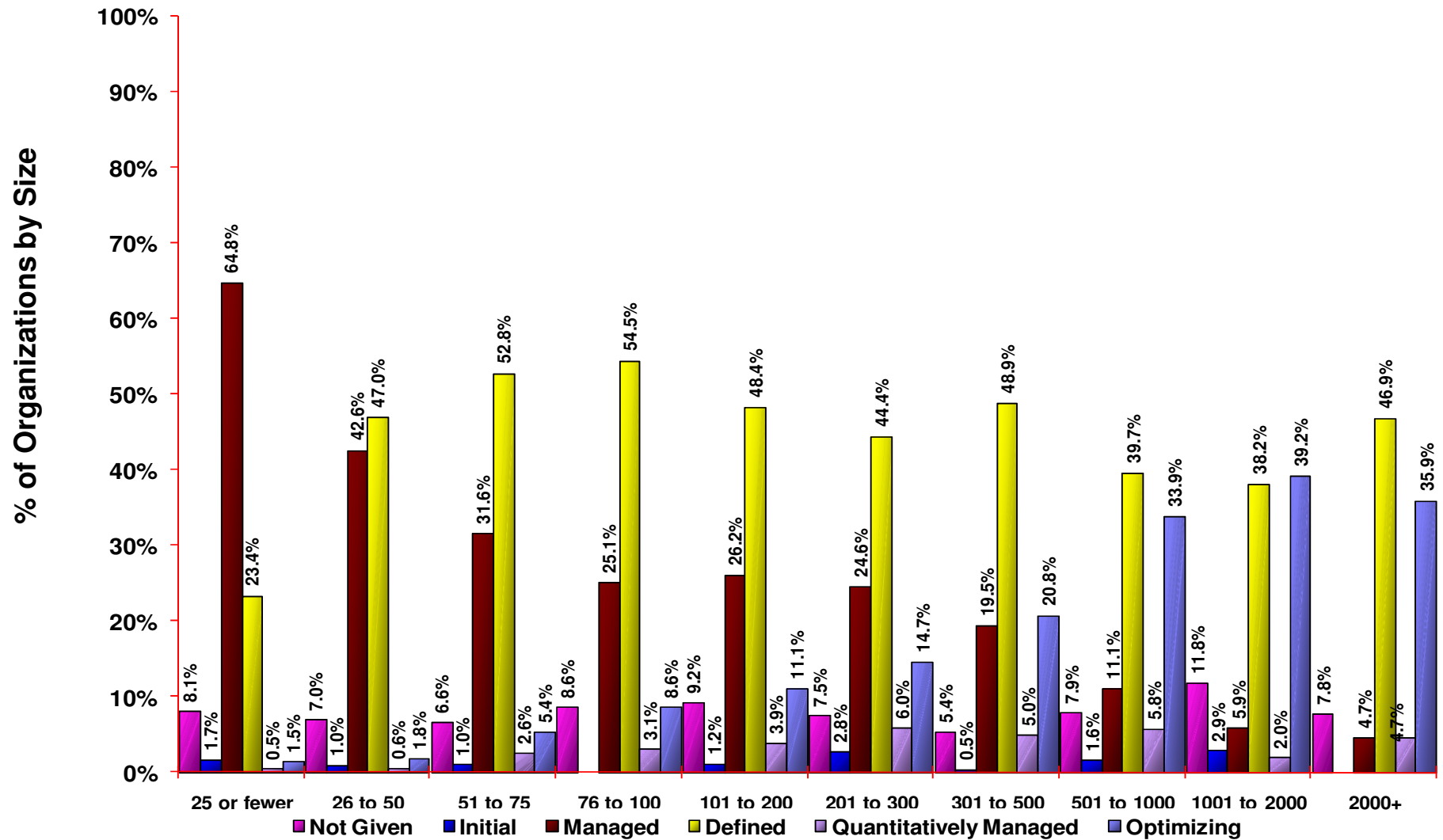

Based on **2968** organizations reporting size data
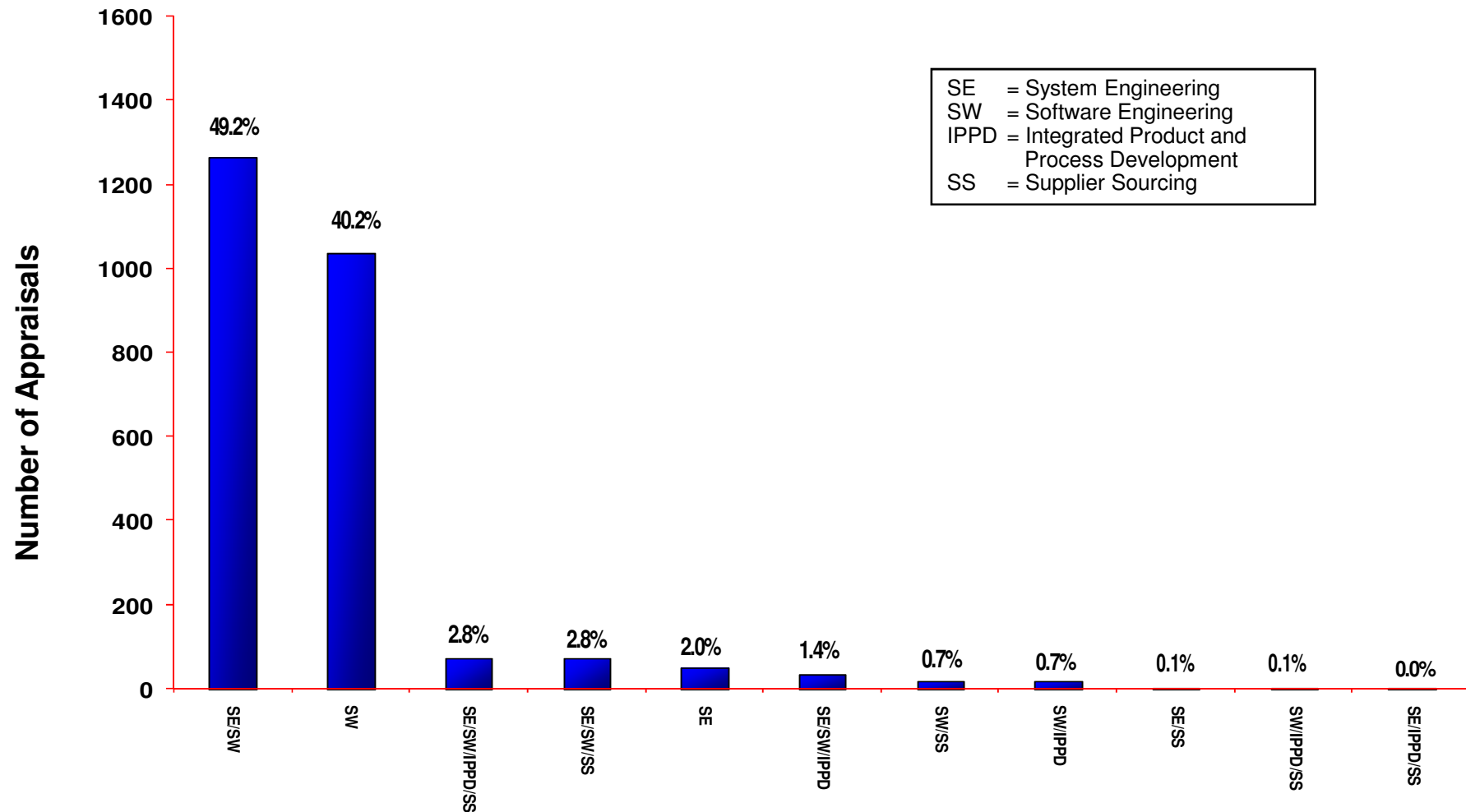
Maturity Profile by Organization Size

Based on the total number of employees within the area of the organization that was appraised

Based on **2968** organizations reporting size data
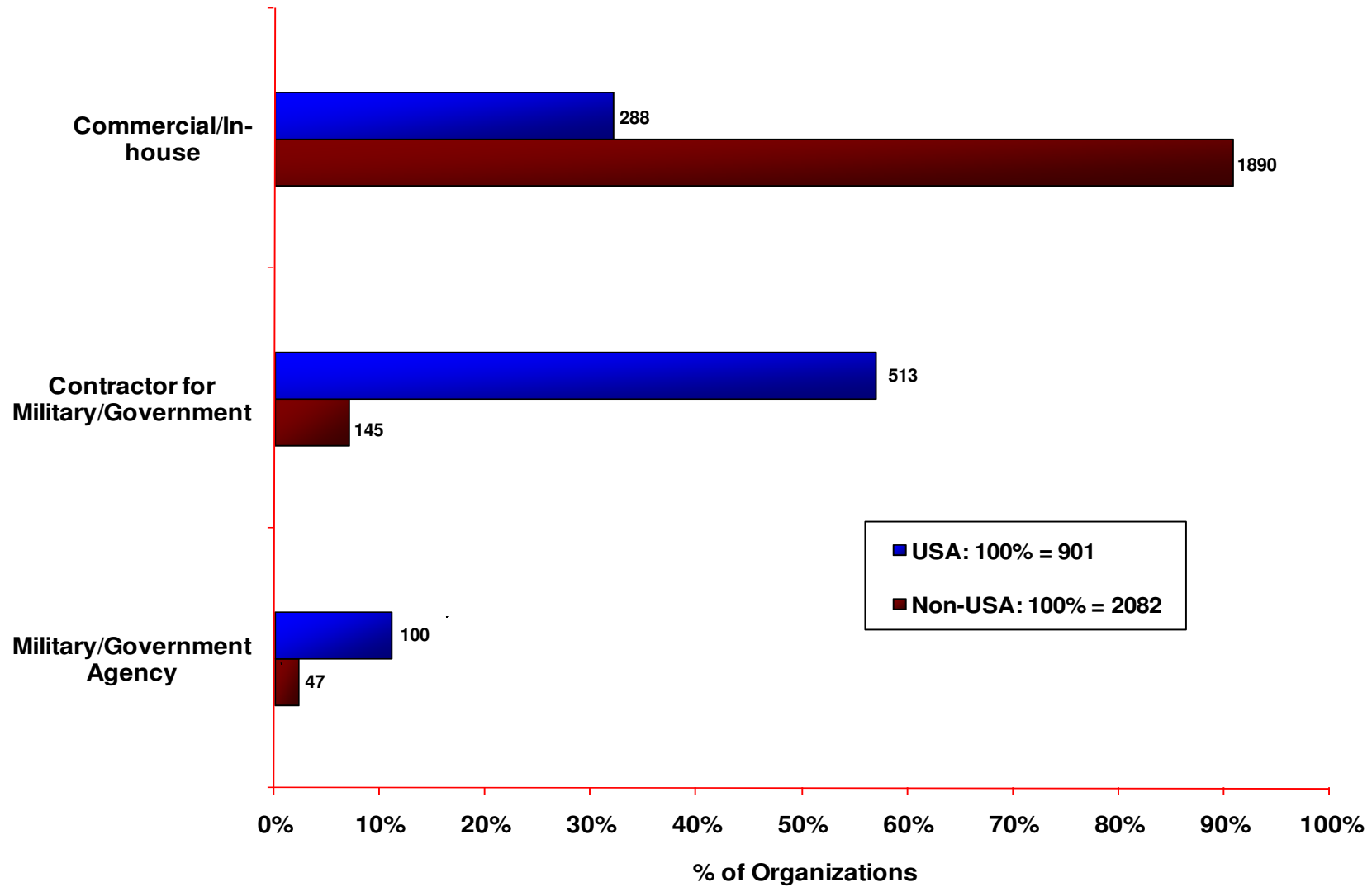
Disciplines Selected for Appraisals (V1.1 Only)

SE	= System Engineering
SW	= Software Engineering
IPPD	= Integrated Product and Process Development
SS	= Supplier Sourcing

Based on **2,576** appraisals reporting discipline data

For more information about Allowable Models & Combinations, visit: http://www.sei.cmu.edu/cmmi/background/aspec.html
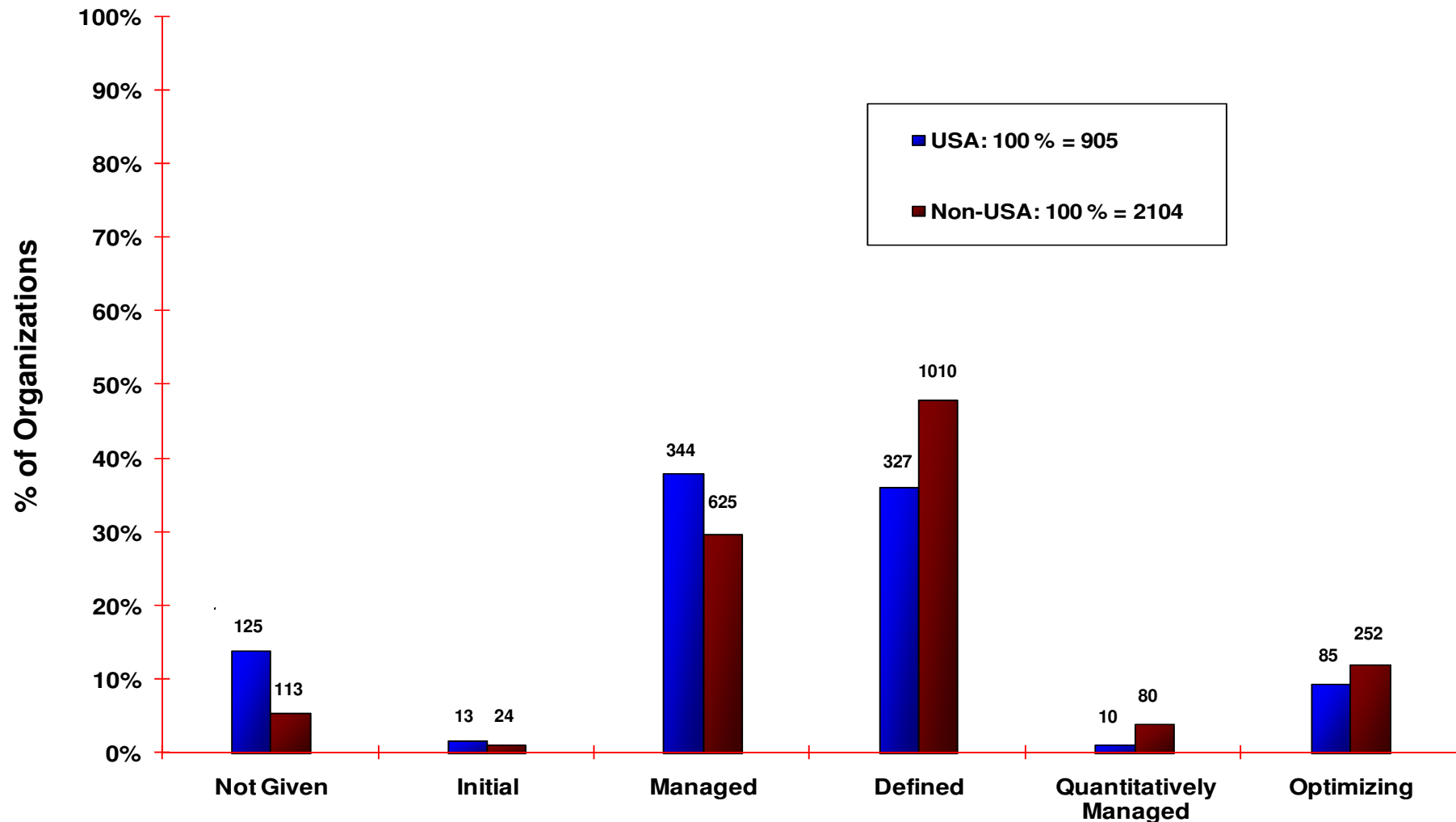
USA and Non-USA
Reporting Organization Categories

% of Organizations

Legend:
- ■ USA: 100% = 901
- ■ Non-USA: 100% = 2082

Commercial/In-house: USA 288, Non-USA 1890
Contractor for Military/Government: USA 513, Non-USA 145
Military/Government Agency: USA 100, Non-USA 47

Based on **905** USA organizations and **2082** Non-USA organizations reporting an organization category

Maturity Profile by All Reporting USA and Non-USA Organizations

Section 2: Community Trends

Appraisals conducted through June 2008 and reported to the SEI

- **63   Countries reported appraisals**
  - **most of the appraisals are from Asia and North America**

- **2583   Appraisals were posted on PARS**
  - **the expired ones were removed and the reappraised were replaced by the newest appraisals**
  - **the posting rate is increasing and it is 88% for 2007 and it is 93 % for 2008**

Please refer to: Terms Used in this Report on page 30

# Countries where Appraisals have been Performed <u>and</u> Reported to the SEI
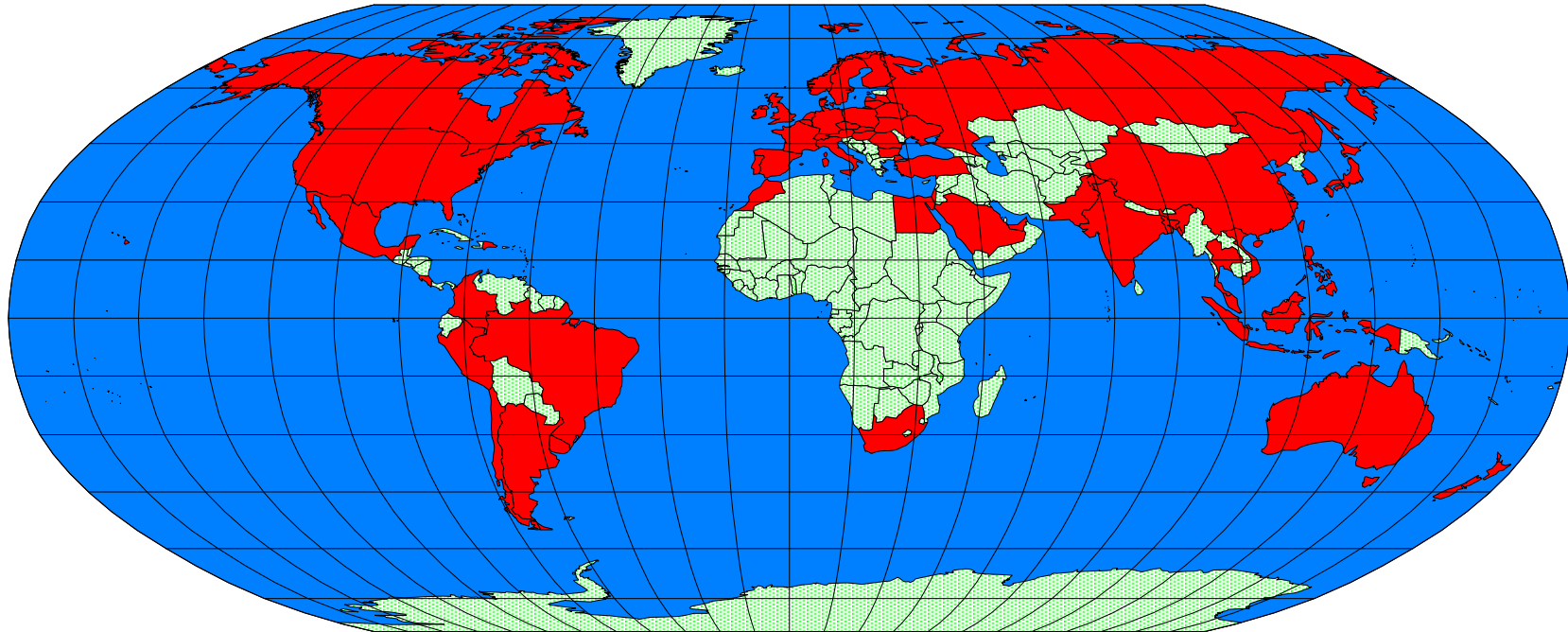
Argentina	Australia	Austria	Bahrain	Bangladesh	Belarus	Belgium	Brazil
Bulgaria	Canada	Chile	China	Colombia	Costa Rica	Czech Republic	Denmark
Dominican Republic	Egypt	Finland	France	Germany	Hong Kong	Hungary	India
Indonesia	Ireland	Israel	Italy	Japan	Korea, Republic Of	Latvia	Lithuania
Luxembourg	Malaysia	Mauritius	Mexico	Morocco	Netherlands	New Zealand	Norway
Pakistan	Peru	Philippines	Poland	Portugal	Romania	Russia	Saudi Arabia
Singapore	Slovakia	South Africa	Spain	Sweden	Switzerland	Taiwan	Thailand
Turkey	Ukraine	United Arab Emirates	United Kingdom	United States	Uruguay	Viet Nam	

Red country name: New additions with this reporting

Number of Appraisals Reported to the SEI by Continent
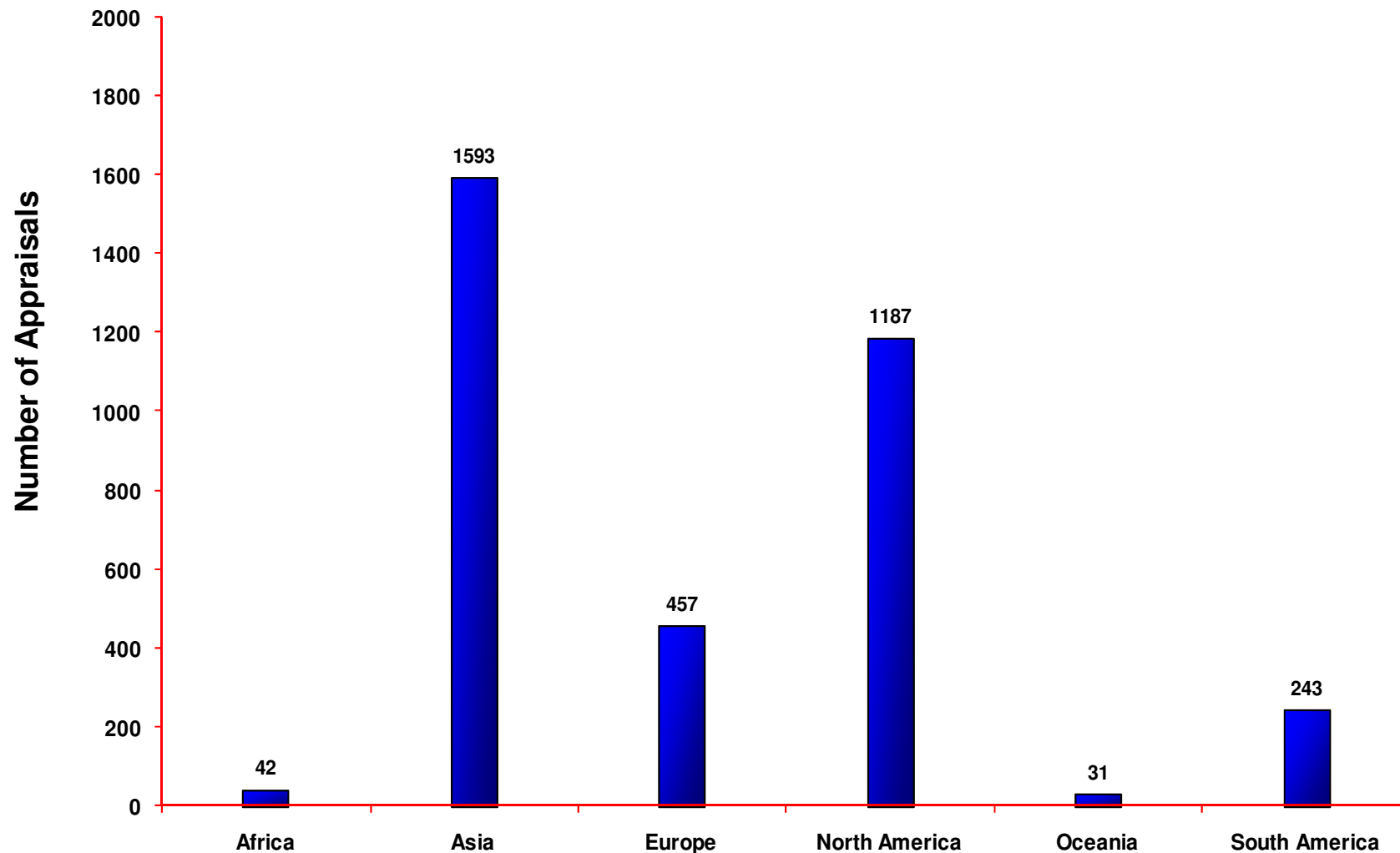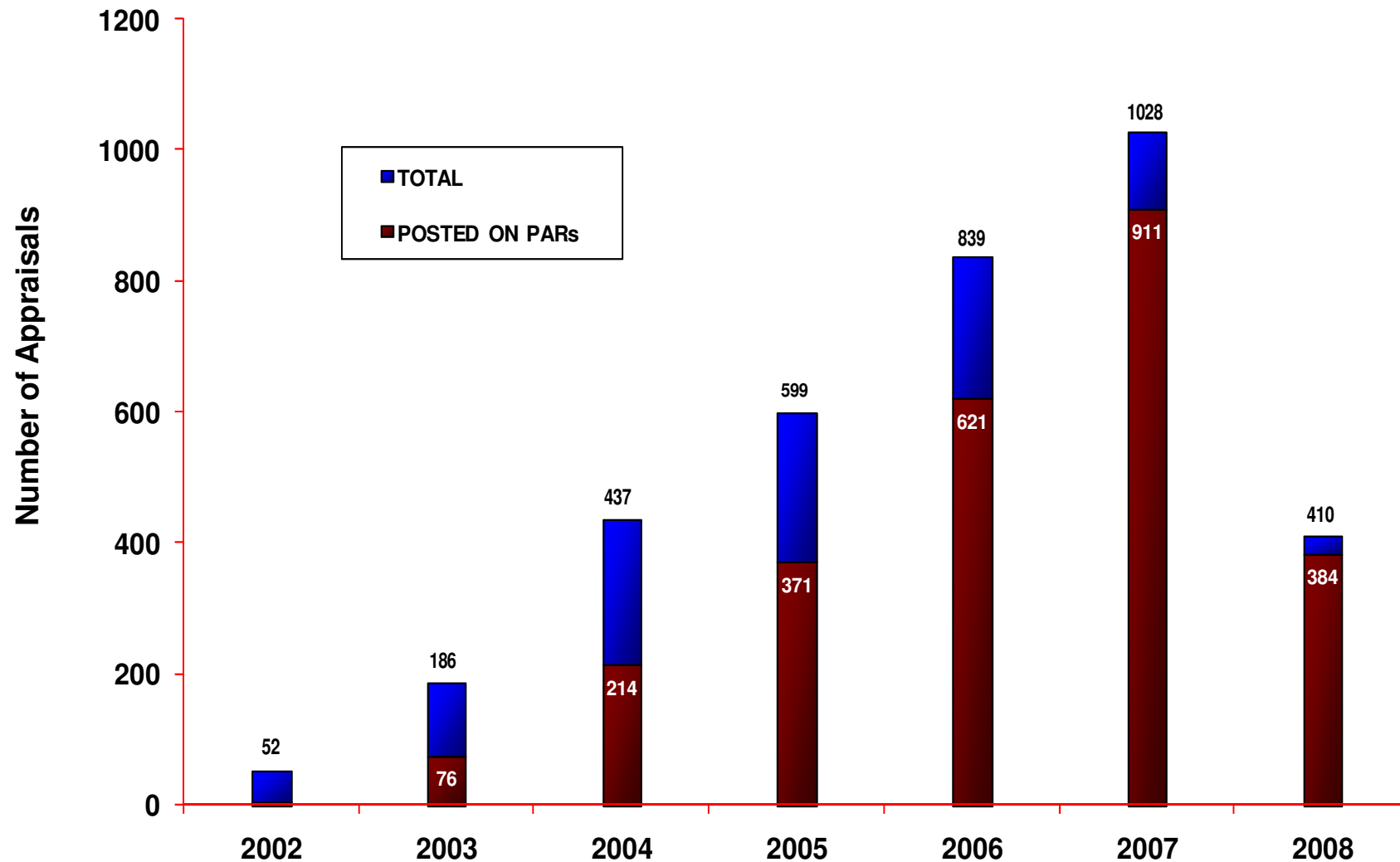

Based on **3553** appraisals

Number of Appraisals and Maturity Levels Reported to the SEI by Country

| Country	Number of Appraisals	Maturity Level 1 Reported	Maturity Level 2 Reported	Maturity Level 3 Reported	Maturity Level 4 Reported	Maturity Level 5 Reported	Country	Number of Appraisals	Maturity Level 1 Reported	Maturity Level 2 Reported	Maturity Level 3 Reported	Maturity Level 4 Reported	Maturity Level 5 Reported
Argentina	57		40	10	2	3	Luxembourg	10 or fewer					
Australia	30	1	8	5	2	4	Malaysia	50		19	26		5
Austria	10 or fewer						Mauritius	10 or fewer					
Bahrain	10 or fewer						Mexico	45	1	20	17	3	4
Bangladesh	10 or fewer						Morocco	10 or fewer					
Belarus	10 or fewer						Netherlands	10 or fewer					
Belgium	10 or fewer						New Zealand	10 or fewer					
Brazil	88		41	35	1	8	Norway	10 or fewer					
Bulgaria	10 or fewer						Pakistan	24	1	17	4		1
Canada	47	1	11	20	5	3	Peru	10 or fewer					
Chile	27		17	8		1	Philippines	20		2	10		7
China	585	1	111	395	22	39	Poland	10 or fewer					
Colombia	19		6	10	1	2	Portugal	10 or fewer					
Costa Rica	10 or fewer						Romania	10 or fewer					
Czech Republic	10 or fewer						Russia	10 or fewer					
Denmark	10 or fewer						Saudi Arabia	10 or fewer					
Dominican Republic	10 or fewer						Singapore	16		3	8	1	4
Egypt	31	1	14	11	2	2	Slovakia	10 or fewer					
Finland	10 or fewer						South Africa	10 or fewer					
France	125	4	75	38	1	2	Spain	85	1	53	25	1	3
Germany	58	7	30	9	1	1	Sweden	10 or fewer					
Hong Kong	15		2	9		4	Switzerland	10 or fewer					
Hungary	10 or fewer						Taiwan	111	1	72	35		2
India	362	1	13	156	22	158	Thailand	13		7	4		1
Indonesia	10 or fewer						Turkey	11			9		2
Ireland	10 or fewer						Ukraine	10 or fewer					
Israel	16		3	9		2	United Arab Emirates	10 or fewer					
Italy	19		9	9			United Kingdom	79	3	39	26	1	2
Japan	241	17	69	103	13	15	United States	1136	26	404	394	21	118
Korea, Republic Of	112	1	35	49	11	7	Uruguay	10 or fewer					
Latvia	10 or fewer						Viet Nam	10 or fewer					
Lithuania	10 or fewer												

Number of SCAMPI A Appraisals Reported to SEI by Year
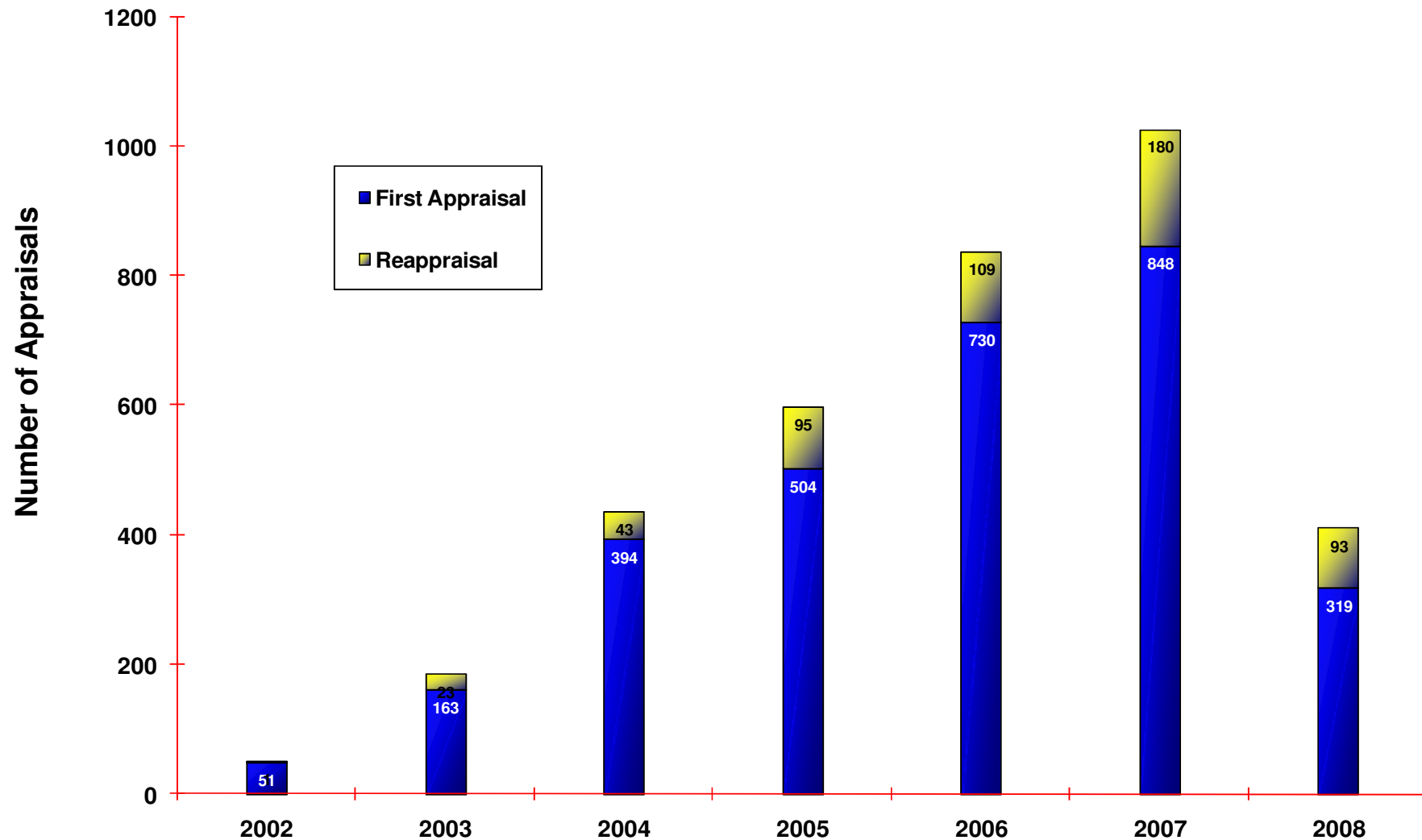
Based on 3553 appraisals

Trends in the Community Maturity Profile

Year	Orgs
2002-2005	1112
2006	1842
2007	2690
2008	3009
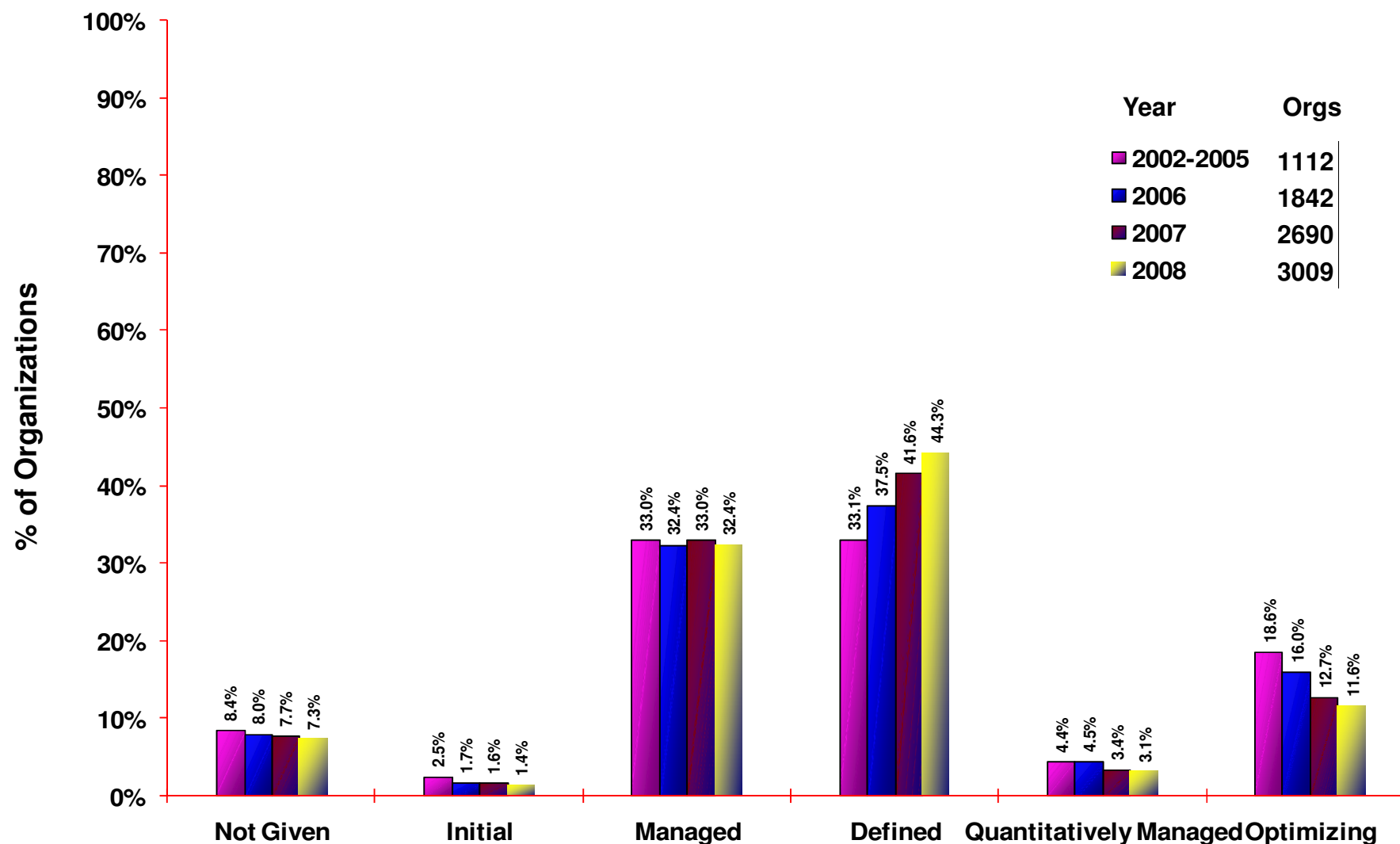
Based on a cumulative view of the most recent appraisals of organizations up through the year indicated

September 2008

Section 3: Organizational Trends

**Appraisals conducted through June 2008 and reported to the SEI**

- **1,227 Process Area (PA) profiles**
  - satisfaction of PAs by maturity level for organizations appraised at levels 1 and 2

- **451   reappraised organizations**
  - accounting for 995 appraisals
  - although some organizations conducted multiple reappraisals, only the first and latest appraisals were used in creating the charts on pages 26

Please refer to: Terms Used in this Report on page 30

Process Area Profiles - 1
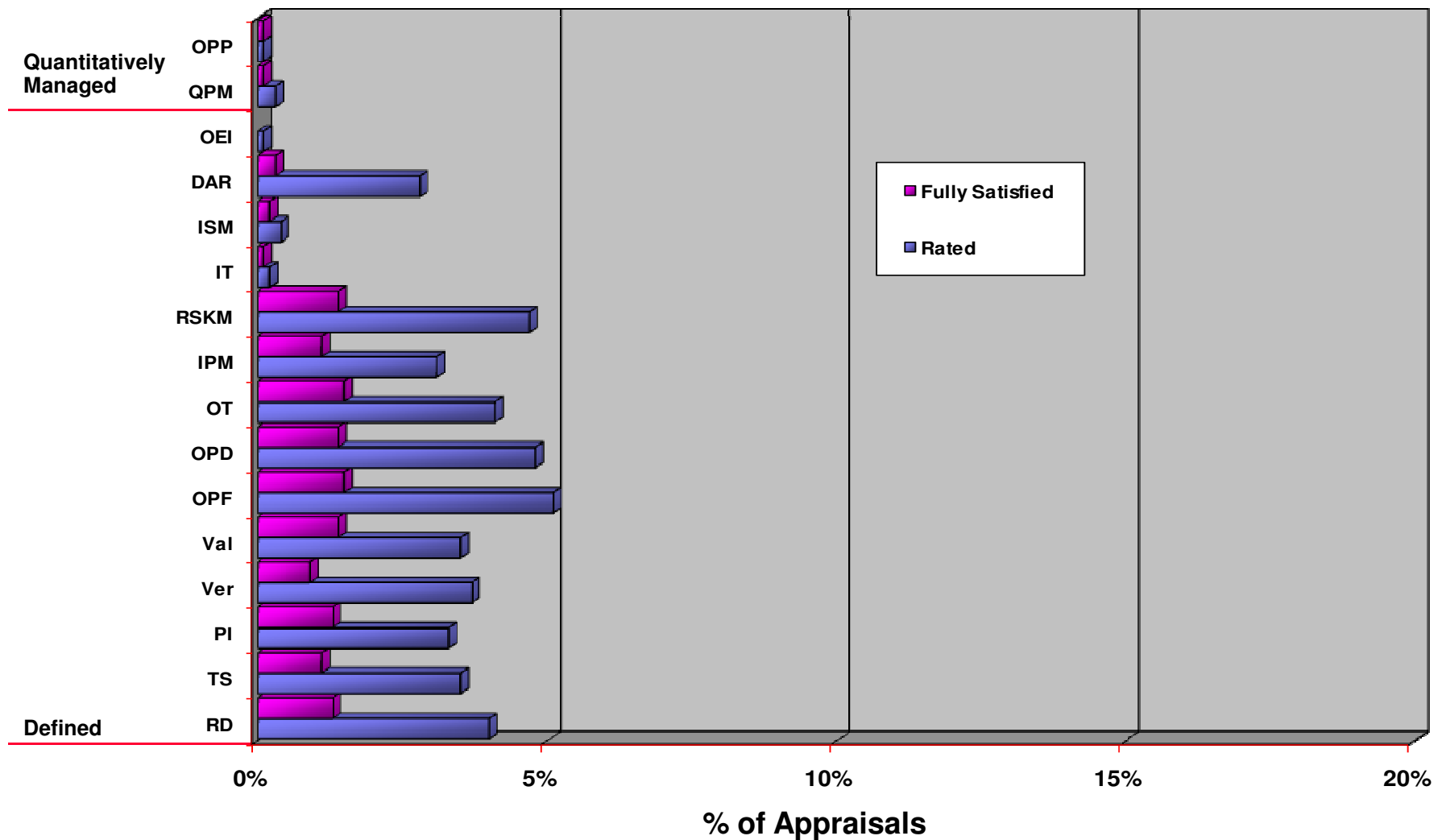# Organizations Appraised at Maturity Level 1
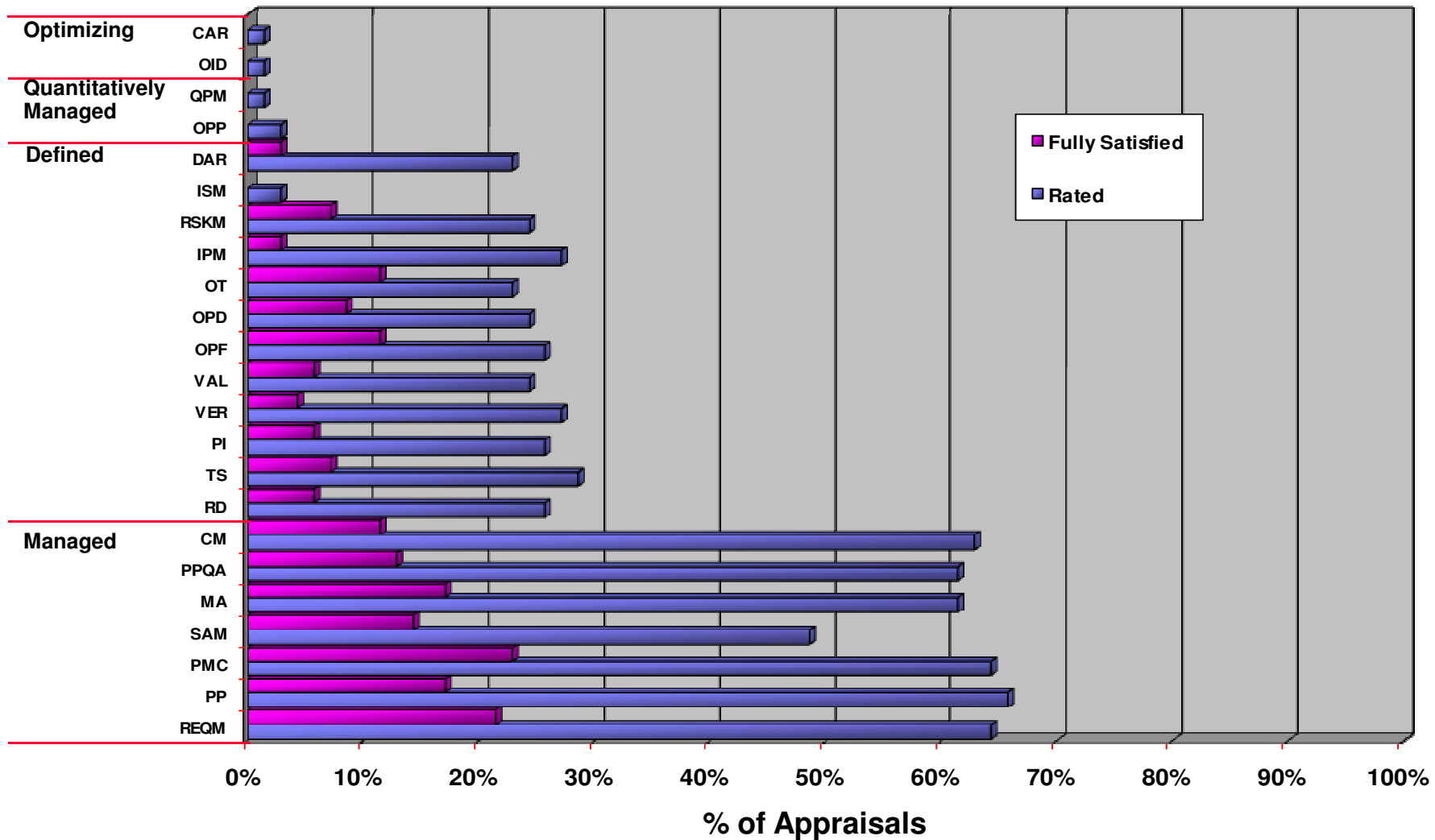
Based on **70** appraisals reporting a maturity level 1 rating
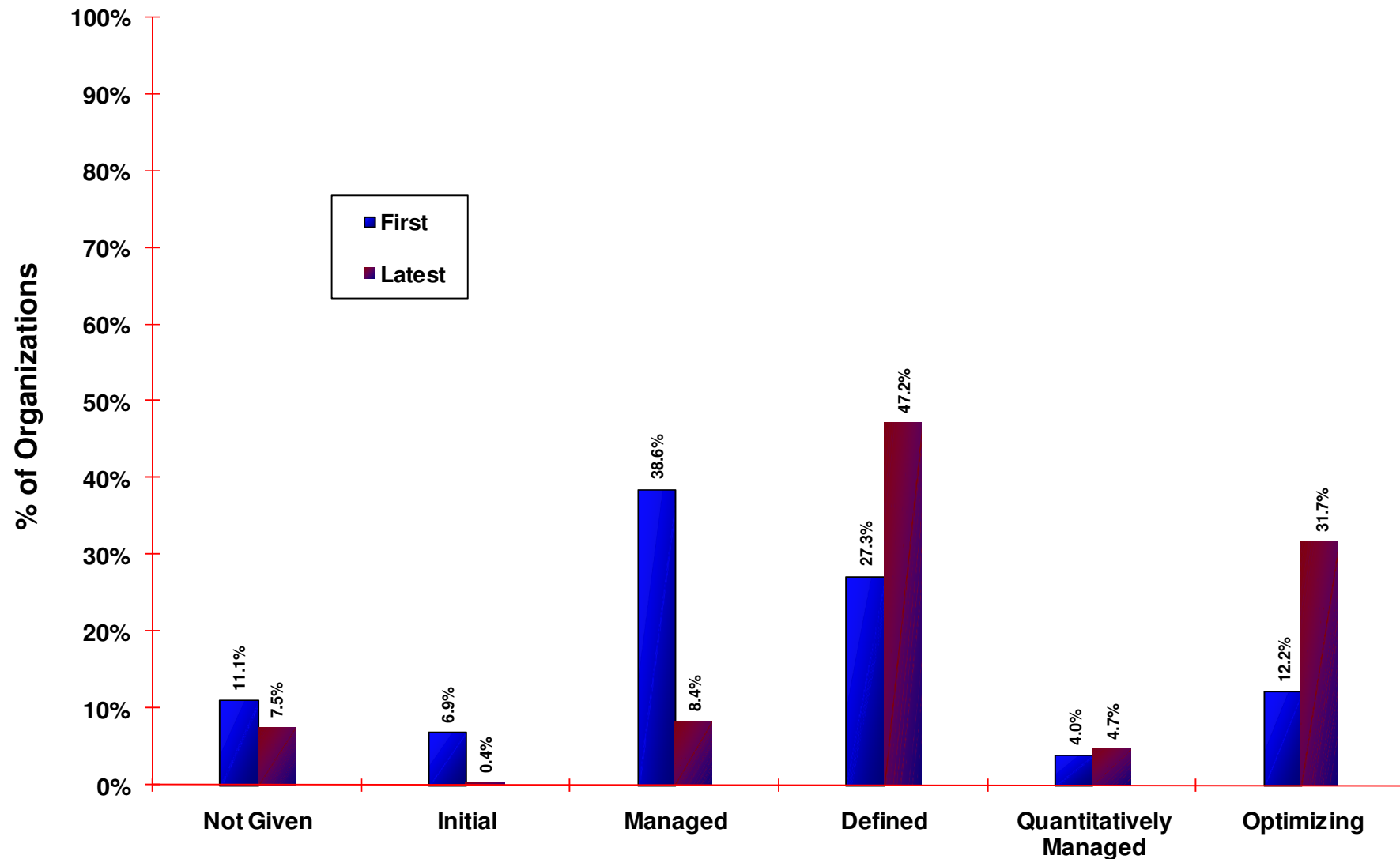
Process Area Profiles - 2
Organizations Appraised at Maturity Level 2

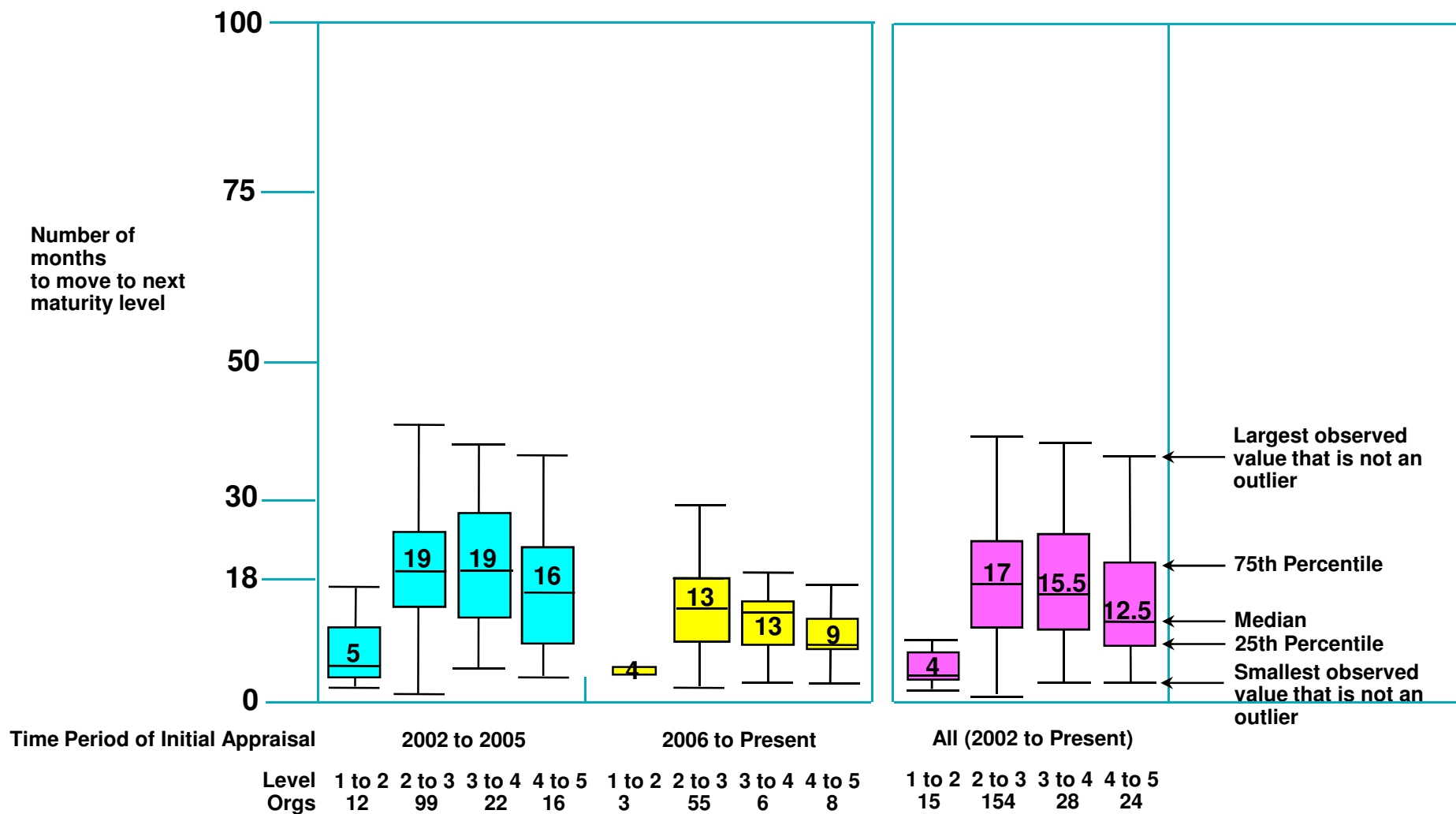Based on **1157** appraisals reporting a maturity level 2 rating

Maturity Level of
First and Latest Appraisal

Based on **451** reappraised organizations using their first and latest appraisal

Time to Move Up

Summary - 1

3553 appraisals have been reported to the SEI in 76 months

The Organization Category of "Commercial/In-house" reports most of the appraisals

The highest percentage of "Commercial/In-house" reporting appraisals is from outside the USA

The highest percentage of "Military/Government Agency" reporting appraisals is from the USA

Outside the USA: China, India, Spain, Argentina, Brazil and Malaysia reported appraisals are increasing at a rapid rate

Summary - 2

For organizations that began their CMMI-based SCAMPI effort in 2002 or later, the median time to move from:

- **maturity level 1 to 2 is 4 months**
- **maturity level 2 to 3 is 17 months**
- **maturity level 3 to 4 is 15.5 months**
- **maturity level 4 to 5 is 12.5 months**

Terms Used in this Report

Company   - Parent of the appraised entity
A company can be a commercial or non-commercial firm, for-profit or not for-profit business, a research and development unit, a higher education unit, a government agency, or branch of service, etc.

Organization - a.k.a. Appraised entity
The organization unit to which the appraisal results apply.   An appraised entity can be the entire company, a selected business unit, units supporting a particular product line or service, etc.

Non-USA   - Appraised entity whose geographic location is not within the United States. The parent of the appraised entity may or may not be based within the United States.

Report your Appraisal Results to the SEI

The briefing is only possible due to the cooperation of organizations and individuals sending in their appraisal results to the SEI

In order to provide this information and service in the future, it will depend on this continued cooperation

Please visit:

http://www.sei.cmu.edu/appraisal-program/profile/index.html

for forms, information, and instructions on how to report appraisals to the SEI

Contact Information

Please visit:

http://www.sei.cmu.edu/appraisal-program/profile/index.html

and review the information provided before contacting:

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